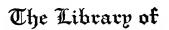


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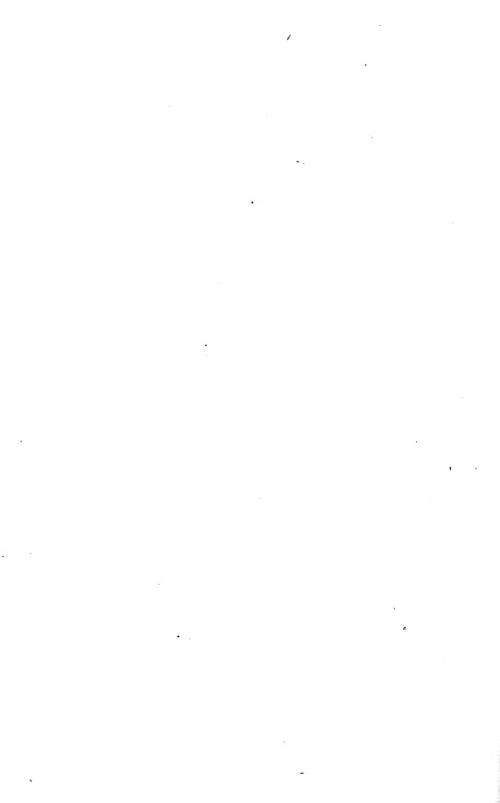


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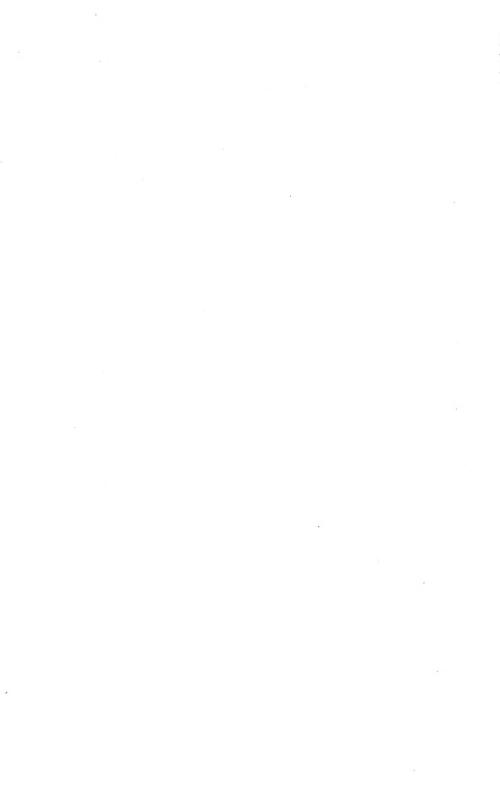


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ARBOR DAY MAY 14 1909廳



ARBOR DAY ANNUAL

No. XVIII

MAY 14, 1909

PREPARED FOR USE IN PUBLIC SCHOOLS



DEPARTMENT OF EDUCATION STATE OF RHODE ISLAND

ARBOR DAY SONG.



From "Academy Song Book," Ginn & Co.

State of Rhode Island

DEPARTMENT OF EDUCATION

ARBOR DAY

PREFATORY NOTE

The eighteenth Arbor Day program reminds us that the public will, by law, has given to every child in the public schools of Rhode Island, among other school rights, his right of Arbor Day—a right to the instruction, inspiration, and experience of this day. To teachers, principals, and superintendents is entrusted the responsibility of conserving and maintaining the rights of childhood and youth in this as in other school interests. The loyal teacher will respond to the call of Arbor Day, and provide that no pupil miss the ministration of school in the festival of trees and be left untouched by the spirit of springtime.

Arbor Day has its peculiar advantages, and offers to teachers and pupils varied and inviting opportunities. The literary exercises, in celebration of the coming of spring, not only give a knowledge of trees, teach their economic value, and provide instruction in forestry, but also foster a love of natural beauty, awaken an interest in civic betterment, and teach the heart of the child to respond to the beauty and truth and goodness of the world about him. The tree-planting leads to improvement of school grounds, to school and home gardens, and to home, village and city improvement.

The observance of Arbor Day has been an energizing force in the national movement for the preservation of our forests and other natural resources. Many an improvement society has had its genesis in the school. In village and country, the school may well become a social center for forming associations of parents and others, for the conservation of our natural wealth of farm and forest, and for the betterment of country and village life. Arbor Day may well be made an occasion for such organization. The school is for the public, for a better citizenship of young and old.

Like other good friends, the trees introduce us to their own intimate and pleasing acquaintances. Children and older folk well know that other songs than the murmur of winds come from the treetop. This number of the annual suggests that in keeping tree-day, the children remember the birds, the friends and protectors of trees. Let them learn how the birds serve the trees, in requital for their homes among leafy branches. Let them know that to protect the birds is to protect the trees. Let them appreciate

the value of bird houses and be encouraged to build them. That many boys and girls in Rhode Island will become active in protecting birds, for their own sake, and for the sake of trees, is the hope with which this booklet is sent forth among the children of the schools. It is with this end in view that Mrs. Alger, in her service of compilation, has brought together so much interesting and useful material about trees and birds and nesting-houses, and that Miss Stillman has carried out the theme of her cover design. It is a matter of so great importance, that the governor of a great State has issued a proclamation about it.

The supreme value of Arbor Day is its ethical influence. A study of nature makes for moral culture. The reaction of visioned beauty makes the heart more beautiful. A love for trees and sympathy with birds, like all communion with nature, prompts kindness to all living creatures. They inspire regard for the rights, feelings, and worth of everything that breathes. A child by kindly act to bird or beast, grows in the power of good-will toward his playmate. The kindly are the coming people. Kindness is righteousness, as cruelty is crime. Kindness involves self-denial, patience, gentleness, mercy, reverence. These are the fruits of good character. For fine civic training, the school can have no truer aim than to inspire its pupils with the spirit of kindness. This can be done by prompting kindly acts to animals, as well as to schoolmates, thereby preventing not only the suffering of sensitive creatures but also the moral degradation of persons who cause suffering. Arbor Day, like other days of springtime, is a time for planting truth and goodness in the hearts of children, as well as trees and plants in the kindly soil.

Natter E. Ranger

Commissioner of Public Schools.

STATE House, March 16, 1909.

RHODE ISLAND.—OUR BEAUTIFUL STATE.

 $(A\ loyal\ thought\ for\ Arbor\ Day.)$

"God gives all men all earth to love,
But since man's heart is small,
Ordains for each one spot shall prove
Beloved over all;
Each to his choice, and I rejoice,

The lot has fallen to me In a fair ground, in a fair ground—

Yea,"—Rhode Island "by the sea!"

-Kipling (Last line adapted).

SUGGESTIVE PROGRAM.

General Theme for Arbor Day, 1909-Our trees need our birds.

Every pupil should have some part in the exercises.

SONG. SCRIPTURE. PRAYER. SONG. QUOTATIONS ABOUT TREES AND BIRDS.

READING: "JOHNNY APPLESEED—A PIONEER HERO." (p 12.)

ESSAY: WHY WE MUST PLANT TREES.

SONG. SHORT RECITATIONS.

ESSAY: THE FEATHERED POLICE, OR HOW OUR NATIVE BIRDS PROTECT OUR TREES.

OUR BIRD PATROL AND OTHER SHORT INCIDENTS (ρ 16, 18, 19,) RELATED BY SEVERAL PUPILS.

SONG. ADDRESSES. PLANTING EXERCISES.

He that planteth a tree is a servant of God.
He provideth a kindness for many generations,
And faces that he hath not seen shall bless him.

-Henry Van Dyke.

Itt's merrye walkyng in the fayre forrest To heare the small birdes songe.

-Ballad of Robin Hood.

As for birds, we should keep them just as we keep trees. They add immeasurably to the wholesome beauty of life.

—Theodore Roosevelt.

Much of the beauty of trees and shrubs is gone when the cheerful life of the birds is absent. This State is spending thousands of dollars annually to protect and increase the number of game and song birds. Let the children co-operate in this good work by placing nesting boxes in every dooryard and park, and in protecting these, our friends, from their enemies.

-Proclamation of C. S. Deneen, Governor of Illinois, 1908.

SCRIPTURE READING.

The Lord bringeth thee into a good land.

He hath made everything beautiful.

Out of the ground made the Lord God to grow every tree that is pleasant to the sight and good for food.

The birds of the air came and lodged in the branches thereof.

Under his shadow dwelt all great nations.

Thou shalt not destroy the trees—Thou shalt not cut them down, for the tree of the field is man's life.

The desolate land shall be tilled—They shall say This land that was desolate shall become like the garden of Eden.

And the tree of the field shall yield her fruit.

Then shall the trees of the wood sing out at the presence of the Lord.

He hath brought thee into a good land.

He hath made everything beautiful.

A THANKSGIVING.

For the wealth of pathless forests
Whereon no axe may fall;
For the winds that haunt the branches,
The young birds' timid call:
For the red leaves dropped like rubies
Upon the dark green sod;
For the waving of the forests,
I thank Thee, O my God!

For the rosebud's break of beauty
Along the toiler's way;
For the violet's eye that opens
To bless the new-born day;
For the bare twigs that in summer
Blossom like the prophet's rod;
For the sweetness of the flowers,

I thank Thee, O my God!

—Lucy Larcom.

"KEEP IT."

Far in the woods, the fresh green woods in May, Once sang a bird; but all it found to say, Was, "Keep it, keep it!" all the merry day.

The bird—I never saw it, no, not 1; I followed it, but it flitted far on high; And "Keep it, keep it!" Echo caught the cry.

I was so glad as through the words I went; And now I think that "Keep it, keep it!" meant, "Child, keep each happy thought that Heaven has sent."

-Edith M. Thomas.

TREES AND BIRDS.

Trees and birds make our streets, our homes, and our cities more beautiful and pleasant, but they do more than that. They make all who look upon them, who care for them and love them, happier and better. These days are set aside for the study of trees and the planting of them; for the study of birds and the protecting of them; but more particularly to arouse a finer sentiment towards them in the hearts and minds of the children. It is well to plant a tree in the ground, but it is better to implant the love of the tree in the child. A bird in the heart is worth two in the bush. But the tree must be in the ground and the bird in the bush before either can live or grow in our appreciation.

-Illinois Arbor and Bird Day Manual, 1908.

A HYMN FOR ARBOR DAY.

(Tune "America.")

God save this tree we plant!
And to all nature grant
Sunshine and rain.
Let not its branches fade,
Save it from axe and spade,
Save it for joyful shade—
Guarding the plain.

When it is ripe to fall,
Neighbored by trees as tall,
Shape it for good.
Shape it to bench and stool.
Shape it to square and rule.
Shape it for home and school,
God bless the wood.

Lord of the earth and sea
Prosper our planted tree.
Save with Thy might.
Save us from indolence,
Waste and improvidence,
And in Thy excellence
Lead us aright.

-H. H. Hay.

To watch the corn grow and the blossoms set; to draw hard breath over plowshare or spade; to read; to think; to love; to pray; —these are the things that make men happy.

-John Ruskin.

OUR FORESTS.

In the early history of this new western world the forest, like the Indian, receded before the axe of the conquering settler. He found the woods a hindrance, and so destroyed them by wholesale to give place to the cultivated field. The question long was how to get rid of the surplus logs and woodlands, not how to save and cultivate the trees. But we have now reached a period when the vast and varied demands of our civilization have nearly exhausted the supply of wood and timber. There is now alarm lest that which kind Nature made so abundant, and which enters so largely into the life of the humblest citizen, may become too scarce and too costly. The attention of the whole country has been called to the study of trees, their protection from reckless, destructive fires, and their cultivation for both useful and ornamental purposes. Thoughtful classes have come to believe that we made a mistake in sacrificing so many woods and trees, that the farmer even as well as towns and cities will be better off in the years to come if we save from destruction, or replant, much forest area. Let us see why.

The leaves that fall to the ground under the trees make the earth there like a thick When it rains much water is eaught and held by the leaves upon the trees and then dropped down gradually to the earth where it is still held back by this spongy coating of the ground, and so slowly is it given up to the soil below that sometimes the brooks do not get the rain that fell until weeks afterwards. Besides this, the fallen trunks and branches of trees stop the water that comes pouring down the slopes, making little pools here and there, and they clog the rivulets and streams and so keep the springs and rivers from being overflowed. Thus we see that in the natural condition of our rivers before man cleared their banks of woods that the forests made as it were a reservoir that held much of the water that fell during the winter and spring rains to give it to the river in the summer time, so the main stream would have a moderately steady flow throughout the year. By clearing away the forest and ploughing the fields we have destroyed this spongy covering and the rain water goes quickly over the surface into the streams and rivers, making dangerous floods in our rainy months which may seriously affect the interests of the country, while in the summer time these same waters may become so low as to be unnavigable.

Another serious misfortune is the loss from trecless lands of the fertile soil. If we take a handful of dirt fit for our plants and examine it we find it made of tiny bits of what is called "rotten rock." The process by which the firm rocks of the earth have been broken up and become decayed and thus ready to feed the plants is a very, very slow one, and the time required extremely long. Now all our lands slope toward the rivers or sea, and the soil is moving slowly but continuously down these slopes. If the slope is gentle or covered with a thick mat of plants, shrubs, or trees, it moves so slowly that before it comes to the banks of the streams nearly all plant food is taken up by the vegetation. If the slope is steep, or the close-knit roots which hold the soil together are ploughed up, the rain sweeps this precious plant food away rapidly, a ploughed field losing perhaps more of its rich soil in a single rainy day than would be taken in a hundred years if covered with woods. In partial proof of this can you not call to mind the crystal purity of some forest rivulet stained in color only by decaying leaves and compare it with the discolored, muddy, dirty stream flowing past tilled land?

The roots of trees supply the sap to the trunk which sends it upwards to the leaves. To make this sap the roots must get the mineral elements from the little stony bits in the soil,

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but can only draw them in after they are dissolved in water. Common rain-water has little power to do this. The layer of dead leaves on top of the ground is made up largely of carbon which as soon as they begin to decay unites with some oxygen of the air and makes carbonic-acid gas. Every rain-drop falling in such a place takes itself many times its own bulk of this gas and finds itself then able to dissolve fifty times as much mineral food to give to the roots as it could before. So the leaves by falling and the plants by dying make richer food for the living, and the fact is obvious that our soil is growing constantly deeper in the woods while the cultivated fields are becoming less in depth.

In still other ways trees affect us. They form a wall protecting the growing crops of the farmer, and preventing the extremes of heat and cold from injuring his crops. Their leaves take the impure air we breathe out, make it over in their little cells, and give it back to us again as pure air. What becomes of smoke from engine or factory? It is absorbed by the trees, all excepting the minute particles of mineral matter which fall to earth and become a part of the soil. The trees absorb all these poisonous gases from decaying life, the gases from chimney stacks, the carbonic exhalations of our own bodies, and convert these poisons into good wood, tree growth, lumber, and valuable material.

From all this, we see, therefore, that the forest is a soil-former, a soil-improver, a soil-fixer, a flood-preventer, a conservator of moisture, a wind-break, a sanitary agent, and a beautifier of the earth. Should we not regard it as a heritage given to us by nature, not for spoil, but to carefully maintain? In the words of President Roosevelt. "The forest and water problems are perhaps the most vital internal questions of the United States. The preservation of our forests is an imperative necessity. Forest protection is not an end of itself; it is a means to increase and sustain the resources of our country and the industries which depend upon them."

Such words are but in accord with the same spirit which prompted the lawmakers in Congress as far back as 1891 to pass the following act:

"The President of the United States may, from time to time, set apart and reserve in any state or territory having public lands bearing forests, any part of the public lands wholly or in part covered with timber or undergrowth, whether of commercial value or not, as public reservations, and the President shall by public proclamation, declare the establishment of such reservations and the limits thereof."

Presidents have used the power conferred by this act so freely the reserves now number 62, and cover an area of over 62 million acres. Besides these we have our five great national parks, which differ from forest reservations chiefly in the fact that no lumbering can be carried on within them, that their game animals are fully protected, and that they are under the care of the troops of the regular army. It requires a special act of Congress to establish national parks, but a president may proclaim a forest reservation.

Most of the Federal reserves are situated on the Pacific Coast and in the mountainous districts of the arid regions. They were located first of all to protect the drainage basin of streams used in connection with extensive systems of irrigation, or to preserve some of the most magnificent scenery of the world and extraordinary natural curiosities, to afford perpetual protection to native flora and fauna, and to furnish a permanent supply of wood.

Many of the States, similarly, have taken great and effective interest in forestry, and some have established State forest preserves of considerable size.

What better, pleasanter, or more profitable pastime can there be, then, for Arbor Day, than trimming up the trees, or planting new trees that may in a few years be objects of admiration and use? What a monument for so slight an effort, and how pleasant in after years to remember the stately tree that represents the little seedling one's own hands

have planted. But not Arbor Day alone, but every opportunity should be improved to get acquainted with trees, to make pride in their symmetry and beauty, to remove surplus branches for the better good of the main stem and top, and see to it that harm shall not come to such good friends of the human race.

"The planting of a sapling is a trifle in expense. There it grows, and costs nothing but time. It is a comfort, an ornament, a refreshing to the people. It is a virtue to set out trees. It is loving our neighbor as we love ourselves. SET OUT TREES."

-Isabel B. Holbrook, R. I. Normal School.

With the planting of a tree a blessing comes to him who drops the seed.

—Arabian Proverb.

The last time I saw James Russell Lowell he walked with me in the garden at Elmwood to say good-bye. There was a great horse-chestnut tree beside the house, towering above the gable, covered with blossoms. The poet looked up and laid his trembling hand upon the trunk. "I planted the nut," said he "from which the tree grew. My father was with me and showed me how to plant it."

-Henry Van Dyke in "Little Rivers."

It never rains roses: When we want to have more roses we must plant more rose trees.

—George Eliot.

No seed is so tiny, but it may hide the possibility of covering the whole world with plants of its kind. Instead of mourning the loss of our forests let us go to work. With a single living pine seed, properly cared for by man, we may cover the continent, in an ineredibly short time, with a forest of pines.

—Dr. $Hodge._{\frac{F}{2}}$:

AN ARBOR DAY MESSAGE FROM DR. EDWARD EVERETT HALE.

"Washington, D. C., February 17, 1909.—I planted 500 pine trees two years ago in Matunuck, R. I., near my house. But, as Secretary Wilson says, 'it is not the spade planting we want. It is the seed—and those your boys will care for.'"

"Think of it! If for one hundred years the nation plants 250,000 acres by far the needful demand will be fully met. This means about 6,000 acres in each of forty states. The smaller states like Massachusetts and Rhode Island would have much less than that average. But Massachusetts holds 5,000,000 acres. Half this land is non-productive. It would be very easy for us to plant areas of 6,000 acres every year for a century. I hope we shall!"

ARBOR DAY WELCOME.

We have come with joyful greeting,
Songs of gladness, voices gay,
Teachers, friends, and happy children
All to welcome Arbor Day.
Here we plant the tree whose branches,
Warmed by breath of summer days,
Nourished by soft dews and showers,
Soon shall wave in leafy sprays.

Gentle winds will murmur softly,
Zephyrs float on noiseless wing;
'Mid its boughs shall thrush and robin
Build their nests and sweetly sing.
'Neath its sheltering arm shall childhood
Weary of the noon-tide heat,
In its cool, inviting shadow
Find a pleasant, soft retreat.

Plant we, then, throughout our borders,
O'er our lands so far and wide,
Treasures from the leafy forest,
Vale and hill and mountain-side.
Rooted deep oh, let them flourish,
Study giants may they be!
Emblems of the cause we cherish,
Education broad and free.

-S. J. Pettinos.

WHAT DO WE PLANT

What do we plant when we plant the tree? We plant the ship which will cross the sea; We plant the mast to earry the sails; We plant the plank to withstand the gales, The keel, the keelson, the beam, the knee; We plant the ship when we plant the tree.

What do we plant when we plant the tree? We plant the houses for you and me; We plant the rafters, the shingles, the floors; We plant the studding, the lath, the doors, The beams, the siding, all parts that be; We plant the house when we plant the tree.

What do we plant when we plant the tree? A thousand things that we daily see; We plant the spire that out-towers the crag; We plant the staff for our country's flag; We plant the shade from the hot sun free—We plant all these when we plant the tree.

-Henry Abbey.

"JOHNNY APPLESEED"-A PIONEER HERO.

(For declamation or reproduction.)

The extensive fruit orchards which constitute a great source of the wealth of the states in the Ohio and Mississippi valleys originated in the work of one man, John Chapman,—known to the first settlers of the middle west as "Johnny Appleseed." For over forty years this pioneer hero devoted his life to his self-chosen task of planting orchards in the unbroken wilderness just in advance of civilization. His labors extended over one hundred thousand square miles of our country, and are still bearing fruit in hundreds of orchards, which he is known to have started. Senator Sherman once spoke of this orchardist as one of the most striking figures the republic has produced.

At the time of John Chapman's death in 1837, he was mentioned in congress as a man who had done more for the west than any man of his era.

There are many traditions and legends about Johnny Appleseed. The actual facts shown by authentic records may be stated briefly: He first appeared in the valley of the Potomac in 1789. In 1790, he drifted down the Ohio river in a boat loaded with appleseeds,—obtained, it is said, from the eider presses of Pennsylvania.

At this time there were not over six thousand people between the Alleghany mountains and the Pacific ocean. If a youth of this century, journeying from Pittsburg to St. Paul, should find one cabin at Columbus, Ohio, and another at Fort Wayne, Indiana; then one house where Chicago now is, and its nearest neighbor at Dubuque; if in the long journey he should sleep two nights in the forest for one night in a cabin, he would find that which would correspond to the number of cabins John Chapman found in the forests of the West. But soon the emigrants came in like a flood, and they changed the forests into pastures and meadows. To make ready for their coming John Chapman undertook his truly great task.

His plan was to go in advance of the probable path of settlement—planting apple seeds in the wilderness. When he had found an open glade in the forset—usually along some river bank, with rich, loamy soil, he dug up the ground, planted thousands of seeds, wove a secure brush fence to keep the deer away, and went on down the river to repeat his work in another open glade.

These nurseries seem to have been located with a view to the probable demand for the trees for transplanting by the time they became large enough. The frontier kept gradually moving westward, but when the first settlers arrived there were always fruit trees ready and waiting for them.

John Chapman made many journeys on foot over the Indian trails, earrying a leathern bag of seeds on his back. The Indians treated him with kindness. During the war of 1812, when the frontier settlers were at the mercy of the savage allies of Great Britain, "Johnny Appleseed" wandering alone and unarmed was never molested. It is said that on several occasions, during this period, he was able to give the settlers warning of the approach of bands of hostile Indians.

John Chapman was not, as many have supposed, a crazy fanatic. He was a man of education, ideals, and purpose. There was broad intelligence and definite method in all his work. He held a clear vision of the future growth of the country, and he helped to make his vision real by planting apple trees.

Why John Chapman took up this self-appointed task, what power drove him forward through forty years in the wilderness, from what source came his courage and fortitude,

how he endured his loneliness and privation, we may never truly know; but his career is full of inspiration and encouragement to the youth of to-day.

John Chapman died in 1837, and was buried in one of his own orehards near what is now Fort Wayne, Indiana.

Since that far-off November day more than seventy years have passed over the republic. Seventy times the apple boughs have breathed their perfume on the air. The great Ohio and Mississippi valleys have become the seat of mighty states. The land teems with towns and cities. Steamers ply up and down the rivers. Like shining shuttles, trains flit back and forth, weaving the texture of civilization on all the land. And every year eighty millions of people share the treasures of the orchards. Shall John Chapman be forgotten, the man who clothed the great west with its harvests of fruits, whose orchards have added untold wealth to the country?

Our nation owes an immeasurable debt to the sons and daughters of the Revolution who crossed the Alleghanies and laid the foundations of the commonwealths of Ohio, Indiana, and neighboring states. Among the builders of our grand republic we must make a large place for John Chapman, and on each returning Arbor Day we may well pay a tribute to the "Patron Saint of the American Orchard."

Adapted from "The Quest of John Chapman" by—Newell Dwight Hillis.

WHAT DOES HE PLANT?

What does he plant who plants a tree?
He plants cool shade and tender rain,
And seeds and buds of days to be,
And years that fade and flush again;
He plants the glory of the plain,
He plants the forest's heritage;
The harvests of a coming age;
The joy that unborn eyes shall see—
These things he plants who plants a tree.

What does he plant who plants a tree?

He plants, in sap and leaf and wood,
In love of home and loyalty

And far-cast thought of civic good—
His blessing on the neighborhood

Who in the hollow of His hand

Holds all the growth of all our land—
A nation's growth from sea to sea

Stirs in his heart who plants a tree.

-H. C. Bunner.

[&]quot;He who plants trees loves others beside himself."

[&]quot;Jock, when ye has naething else to do, ye may be sticking in a tree; it will be growing, Jock, when ye're sleeping."

⁻⁻ Highland Laird of Seotland.

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THE SCHOOLHOUSE YARD.

The schoolhouse yard was so big and bare,
No pleasant shadow, no leafy trees;
There was room enough, and some to spare,
To plant as many as ever you pleased.

So first we set there a little pine,

For the wind to play its tunes upon,
And a paper birch, so white and fine,

For us children to write our secrets on.

Then two little elms to build an arch
Right over the gate when they grow up'tall,
And a maple, for they bloom in March,
And have scarlet leaves in the early fall.

A cedar tree for its pleasant smell,
A mountain ash for its berries bright,
A beech for its shade and nuts as well,
And a locust tree for its blossoms white.

At last we planted an acorn small,

To grow in its time a sturdy oak;

And somehow it seemed to us children all

That this was the funniest little joke.

For sweet Miss Mary, smiling, said,
"The other trees are your very own;
But the little oak we plant, instead,
For your grandchildren, and them alone."

Oh, how we laughed, just to think that when Our acorn grows to an oak tree fair, We shall be grandpas and grandmas then, With wrinkled faces and silver hair!

I wonder now if the little folk
That come, in the days that are to be,
To frolic under the future oak
Will be as merry and glad as we.

And if they will plant their elm and beech
As we do, just in the selfsame way,
And sing their chorus and speak their speech
And have such fun upon Arbor Day!

SOME SMALL SWEET WAY.

There is never a rose in all the world But makes some green spray sweeter; There's never a wind in all the sky But makes some bird-wing fleeter; There's never a star but brings to heaven Some silver radiance tender; There's never a rosy cloud but helps To crown the sunset's splendor; No robin but may thrill some heart, His dawn-like gladness voicing; God gives us all some small sweet way To set the world rejoicing.

—Selected.

TAKE YER CHOICE O' SEASONS.

Ye may take yer choice o' seasons; Ye may sing ver song o' summer, Or o' winter, or o' fall; But to me it's the jolly days o' springtime That beats them one and all. When everything is growing. Meadow larks a-tuning up; And the cat bird and the robin Give a daily concert, free: While the woodpecker drums applause From the old dead apple tree; Pee-wees calling from the gate post, Quails a-whistling in the wheat. Nearly everything is a-singing Or a-laughing that yer meet. I like to just stop all day and listen To the jumbled, joyful rhyme; Sounds as if Nature kept a school And this was recess time.

-Adapted.

THE VIOLET-OUR STATE FLOWER.

Selected by the school children of Rhode Island in May, 1897.

"A blossom of returning light
An April flower of sun and dew,
The earth and sky, the day and night,
Are melted in her depth of azure blue."

Incidents for Reading or Recitation by different Pupils.

OUR BIRD PATROL.

"When we cut down a tree without planting another, we make the world poorer—Trees are not only things of beauty, but they give us shade, fuel, and wood for house-building and furnishings.—Besides these benefits, trees protect our rivers and watercourses from drying away.—A treeless land is a dry, weary, unfruitful country.

We may plant trees or carefully guard those already grown, but we cannot always protect them from their insect enemies. We may spray the fruit trees in garden or orchard, but who can protect the woodlands or check the insect in grain or hayfields? Who but the birds? Nature has decreed that the birds shall do this work and has banded them into squads to patrol the earth, trees, and sky."

The little chickadee alone will in one day hunt out and destroy 5,500 eggs of the destructive canker-worm moth. A few lumps of suct hung in the trees will keep a flock of chickadees in the neighborhood all winter. Farms where this bird is encouraged are remarkably free from canker worms.

This is good reason to believe that if the birds had been allowed to increase steadily instead of being destroyed there would now be no need to spend so many thousands of dollars for insect poison.

Our native birds are well called "a vast army on wings, able to carry their flying squadrons hundreds and even thousands of miles whither food abounds and insects threaten destruction to vegetation."

HOW A KING LOST HIS CHERRIES.

Frederick the Great, King of Prussia, being particularly fond of cherries, was annoyed to see that the birds were destroying his favorite fruit. A royal edict was issued ordering the special offenders exterminated. The campaign was so successful that not only were the accused birds destroyed, but many other birds were killed or driven away. Within two years cherries and most other fruits were wanting. The trees were stripped of their leaves by caterpillars and other insects. The great Frederick, seeing his error, imported birds at much expense to take the place of those which had been killed.

-Agricultural Report, Mass. 1865.

NUTHATCHES SAVE THE PEARS.

A pear grower of Rochester, N. Y., had his entire pear crop destroyed by a pear tree insect pest, and he thought there were no prospects of a crop the next year; but numbers of Nuthatches came and worked in his orchard all winter. They poked under loose bark and into crevices and destroyed the eggs of the pest so thoroughly that in the spring the insects were not to be found. In this way these odd little "tree mice" saved thousands of dollars worth of pears in that one winter.

A COSTLY HUNT.

Many years ago in the springtime the townspeople of Bridgewater, Mass., held a great bird hunt. They killed so many birds that the bodies were used to fertilize the soil. The following summer the trees in that town were entirely stripped of their leaves and great areas of grass died. Such results may be expected wherever the birds are decreased and the hosts of insects allowed to flourish.

UNPAID LABORERS.

From morning till night, almost the whole of his life, the bird is working for us. He does not know he is working for us, of course, he is simply hunting for his food. Besides destroying insects and small animals, the birds eat the seeds of troublesome weeds that farmers and gardeners are all the time laboring to keep down. Some of the seed eaters prefer the seeds of the most harmful weeds. One species of our common native birds, the tree sparrow, destroys every year many tons of weed seed.

The king bird has been accused of killing honey bees, but the truth is he feeds upon the robber fly, the worst enemy of the honey bee. This fly has been known to kill over a hundred bees in one day—a great loss to the owner of the hives. It would be difficult to hire men at any price to do the work performed free of charge by the king bird!

It would be interesting to know positively how much the work of our native birds is worth to us. One toad is estimated to be worth \$19.88 each season for destroying cut worms. There are some of our common birds that must be worth even more than a toad.

THE ROBIN'S APPETITE.

The robin eats some of our fruit without permission, but he certainly earns it as truly as our horses and cows earn their grain.

Nearly half of the robin's bill of fare is made up of wasps, ants, spiders, grasshoppers, caterpillars, and eggs of the March fly—that enemy of the hay field. The robin has a great appetite. That is what makes him so useful. If a man were to eat as much in proportion to his size as a robin eats, he would eat in one day an amount equal to a string of sausage three inches in diameter and sixty feet long.

THE BIRD WAR OF 1749.

The early settlers of America waged fierce battle against the crows and blackbirds. A legal reward of three pence a dozen was offered for "dead and wounded." After the springtime of 1849, when great numbers of birds were shot, the grass and grain crops were total failures. The colonists were obliged to import hay from England to feed their cattle.

A MONUMENT TO THE GULLS.

The first crops of the early settlers in Utah were almost utterly destroyed by myriads of crickets that came down from the mountains. The second crops promised well, but again the crickets appeared. They came by millions: fields of wheat fair and beautiful in the morning at evening were as smooth as an empty plate—cleaned by crickets. To lose these crops meant starvation to the people.

Just then came gulls by hundreds, gulls by thousands, and destroyed the insects so the fields were entirely freed from them and part of the crops saved. This wonderful interference of the gulls seemed a miracle to the grateful settlers of 1848. To this day the gulls are protected by law in Utah, and recently a beautiful monument has been erected to their memory.

A COURT FOR BIRDS.

Without birds to hold the insect life in check neither farming or fruit growing or forestry would be possible. But although many kinds of birds are known to be true "policemen of the air" and real protectors of the farmer's fields, there are certain other kinds of birds which are believed to be injurious and destructive. In order that the bird laws of the country may aid the farmer by protecting the useful birds, it is very necessary to know positively which birds do harm by eating more grain and fruit than they do insects, and which birds do good by feeding mainly upon insects. Farmers and fruit growers have long made serious complaint of the damage done their crops by birds; but as it is almost impossible to decide, merely by watching them, what food birds are eating, many mistakes have been made. Some truly valuable birds have been branded as thieves and enemies, while certain crafty secondrels of the bird world have escaped detection.

For instance, a man seeing a bird going over his blossoming fruit trees, concludes he is injuring the trees, shoots him if possible, and reports that this bird eats fruit buds. The rumor spreads and a war against that bird begins in every orchard. The truth is the bird was simply feeding on the insects that would, in time, have ruined the fruit crop.

In many such cases the harm said to be done by birds is mere guess work, from eareless observation.

But the birds have a wise, kind friend in Uncle Sam, who, desiring "liberty and justice for all," has established a court where all cases of accused birds may be fairly tried. Some of these trials extend over a period of many years, but no verdict is rendered until hundreds of witnesses have been examined. The "Bird Court" is one of the most interesting parts of the government in Washington. If you wish to visit it you must call at the Department of Agriculture. As it is the business of this department to take charge of all questions relating to forestry and agriculture, it is a most appropriate place in which to settle the feuds between the farmers and the birds. The court room, where the bird trials are held, is a laboratory furnished with microscopes and all possible helps to exact scientific investigation—for the court is one of inquiry. Much of the testimony is in the hundreds of little bottles which fill the shelves.

It matters not how many complaints are entered against any species of bird or how much damaging evidence is produced, the only proof of guilt the judge will accept is that furnished by actually finding the stolen goods in the bird's stomach. "His Honor the Judge," is known to the children of Washington as the "Bird Stomach Man."

"Nothing is easier," says the judge "than to wrong a bird by snap judgments. Observe: a farmer catches a woodpecker tapping his trees. He sees that holes are made. He argues that holes are not good for trees. Somebody tells him that woodpeckers suck sap. (One variety does, but only one.) The farmer puts down the woodpecker for a felon, and shoots him at sight. As a matter of fact, what is the woodpecker about? Clinging close to the bark, he listens with his head on one side, till he hears the faint gnawing of a boring grub. Then tap, tap, tap, goes his little sharp beak, and out comes the grub. Later on he will revisit that tree to devour the ants nestled in the empty hole. One woodpecker, shot by a farmer as an evil-doer, was found to have tucked away not less than 3,000 red ants in his innocent crop. Now which is better? A clean little hole in the bark, or an insatiable grub, or swarm of ants, tunnelling the heart wood of your tree? As well condemn all woodpeckers because a single variety sucks sap, as abolish the police force because individual patrolmen wink at vice."

One of the most exciting trials ever held in this queer court was of that bold highwayman of birddom—the crow. In order to find out what crows eat the court ordered hundreds of crows killed all over the country; the stomachs with the food in were forwarded to

Washington, where they were carefully examined. Although a verdict of "Not guilty" could not be pronounced, the crow was recommended to mercy because he pays liberally for the grain and chickens he takes by devouring injurious insects, field mice, and other enemies of the farm. The destruction of too many crows might result in such an increase of grubs and grasshoppers that no grass could be grown.

The meadowlark, accused of damaging the hay crop by eating clover seed, is shown by the bird court to be one of the farmer's unpaid laborers: 99 per cent. of his food in clover time being insects—mostly grasshoppers.

No species of bird is condemned excepting upon the evidence of testimony proving that, as a species, it does more harm than good.

The verdicts of the bird court are of great importance to the whole country, and upon these decisions the bird laws of the different states are based.

It is a tremendously serious matter to outlaw a bird. A certain species of hawk was once a target for the hunters of half the States in the Union. For years he soared and swooped with a price on his splendid head. All the time he was playing brownie for the ungrateful farmer. He with his partners, the owls, kept up a perpetual patrol of the fields, hunting down field mice, snakes, grasshoppers, and other troublesome pests. The verdicts of the bird court have resulted in removing the bounties from the heads of hawks and owls in a number of states.

The records of the bird court may be had free of charge from the Department of Agriculture, and are well worth reading. The arguments for and against the accused species of birds and the Judge's summing up of the case give many interesting facts. They show that while serious losses to crops and poultry are caused by some birds, the harm is often more than offset by the great good accomplished by the same species of birds.

By means of the bird court Uncle Sam has settled many long disputed questions; saved countless birds from destruction; proved that most birds earn vastly more than-they receive, and established the right of birds to justice and protection.

RECIPE FOR GAME PIE.

Watch for your game carefully until you find it; observe it well, and then leave it to the enjoyment of life in its native haunts. You will soon have a dish of rarest design and ornamentation, with cover of radiant blue, a filling of happy memories seasoned with vigor and beauty. Every time the pie is opened these memories will begin to sing.

—Isabel Goodhue.

TEN TO ONE.

In 1899 the school children of Worcester, Mass., banded together to coax the birds to nest near their schools and homes. "Ten to One" was their motto, i. e., to have ten valuable native birds where there was but one before. Their efforts were interesting and the results very encouraging.

They set out some of the trees, shrubs, and plants that attract birds and furnished food. They made and put up scores of bird homes. They put out all sorts of nesting materials. They provided dishes of water and pans of mud. Nests were protected. Young or injured birds were cared for until able to fly. Two members of one of the "Ten to One" clubs ducked a boy, who disturbed a robin's nest, until he promised never to do so again.

Dr. Hodge, the famous bird student of Worcester, reports that in three years there has been an increase of 300 per cent. in the native bird population of one city block. In this case the native birds were protected as fully as possible from their two worst local enemies—cats, and English sparrows.

HOW IT CAME.

A tiny shoot peeped out of the ground And opened wide as it gazed around;

Stretching its dainty leaflets bright Up-up-up to the sweet sunlight;

Climbing higher in balmy air
To meet the raindrops glistening there;

Spreading its many branches wide Till song birds came their nest to hide.

And children gathered in joyous glee In the leafy shades of the old oak tree,

All because of a hand they say That planted a seed on Arbor Day.

-Adapted from Sydney Dayre.

GOOD NEWS.

The little birds fly over, And O, how sweetly sing! To tell the happy children That once again 'tis spring.

Here blooms the warm red clover, There peeps the violet blue, O happy little children, God made them all for you.

-Celia Thaxter.

A LITTLE GIRL'S QUESTION.

O, rosebud! Pretty rosebud! I pray thee, tell me true, To be as sweet as a sweet, sweet rose What must a body do? To be as sweet as a sweet, sweet rose, A little girl like you,
Just grows and grows, and grows!
And that's what she must do.

-Joel Stacy in "St. Nicholas Song Book."

WHISPERS.

Whenever I go up or down Along the roadway into town I hear a busy whispering there Among the trees high up in air. It's clear to one who's not a fool
The trees have never been at school;
And if you ask me why I know—
It is because they whisper so!

-Clinton Scollard.

TREES.

However little I may be, At least I, too, can plant a tree.

And some day it will grow up so high That it can whisper to the sky,

And spread its leafy branches wide To make a shade on every side.

Then on a sultry summer day,
The people resting there will say—

"Oh, good, and wise, and great was he Who thought to plant this blessed tree!"

—A. F. Brown.

THEY 'LL COME AGAIN.

They'll come again to the apple tree.
Robin and all the rest,

When the orchard branches are fair to see In the snow of the blossoms dressed.

And the prettiest thing in the world will be The building of the nest.

-Margaret E. Sangster

THE WISE OLD OWL.

"A wise old owl lived in an oak,
The more he saw the less he spoke.

The less he spoke, the more he heard; Why can't we all be like that bird?"

ANTICIPATION.

I am going to plant a walnut tree;
And then when I am a man,
The boys and girls may come and cut
Just all the nuts they can!

And I shall say, "My children dear,
This tree that you enjoy
I set for you on Arbor Day,
When I was but a boy."

And they will answer, "Oh how kind, To plant for us this tree!" And then they'll crack the fattest nuts, And give them all—to me

-Selected.

One throb of nature you can awaken in the child's heart is worth any number of dry facts you can put into his head.—John Burroughs.

BIRD STUDY IN AND OUT OF SCHOOL.

As we begin to realize the economic value of the service which birds render to man, the more we are impressed with the necessity for an increased public intelligence regarding a matter so directly affecting public welfare. When we consider that from various causes the bird population is rapidly decreasing, and also take into account the increase in ravages by insect pests during recent years, we face facts which tell their own story and present an added argument, if one were needed, for bird study by adults as well as by children.

The most direct and practical way to make bird students, bird lovers, and, as a natural consequence, bird protectors of the school children of Rhode Island is to enlarge their acquaintance with, as well as their sympathetic interest in, the home life of the "little brothers of the air." These two aims may be accomplished by every teacher who can intelligently direct the attention of the children to the bird life of the neighborhood.

It is by no means an obstacle to bird study if, as in many cases, the daily program is already so full that there seems to be no spare school time to devote to a wholly new subject, for there is relatively little bird study which can be done profitably in school time. Bird study is essentially an out-of door exercise. It is a subject in which a child must get his facts by actually observing the living birds. Teachers, books, and pictures may aid in stimulating interest and in verifying observations, but nothing should deprive the child of the necessity of using his own eyes and ears—these, as Agassiz once remarked to a student, will bring him "closer to nature than all the books in the universe."

The bird study which is of real value takes place whenever the child watches a living bird under natural conditions. Thoughtful teachers recognize that the best service schools can render in this connection is to awaken the child's desire to watch the birds and to offer along with the ordinary subjects of instruction, language and drawing especially, abundant opportunity for expressing results of all such independent study; in short, the school may properly serve as a starting point from which the child goes out eager to see, and also as a recording station to which he returns as eager to tell, or draw, or write what he has seen.

Undoubtedly the best time for beginning to identify birds is in winter, when the few species present can be easily observed among the leafless branches. The mere question 'What birds live in our neighborhood?" often creates an immediate interest in identifying the common birds. A list of such "Bird Neighbors" kept on the blackboard and increased from time to time, as new neighbors are discovered, helps fix in mind the names of the new acquaintances. In more than one school the children make little note books with appropriately decorated covers, in which they keep records of daily observations: e. g.:

"Feb. 25, 1902. To-day I saw a woodpecker pecking the bark on an apple tree in my yard. It let me go up very close to it, and I saw some red feathers on its head."

Many teachers encourage the children to write on slips of paper new items about recently observed happenings in the bird world. Selections are made from these items and kept in the "Bird Magazine," or "Book of Birds"—an attractive blank book in which are preserved such notes and illustrations made by the children as have a permanent interest. It is understood that the contributions must represent the child's best effort in composition, penmanship, and spellling, and so it becomes a powerful incentive to good work in these directions, as well as an interesting record of careful observations.

When a bowing acquaintance has been established with some of the common birds an extended study of a single variety may wisely be attempted. The birds chosen for such special study should, for obvious reasons, be abundant in the locality. A study of the robin, bluebird, song sparrow, or other common bird, begun in the spring and continued throughout the nesting season, will be found far more profitable than an attempt to study a great variety of birds during one season. Observations out of school should be supplemented at frequent intervals by related drawing, language, and reading lessons in school.

Points relating solely to details of structure do not appeal strongly to the interest of children unless there is some apparent adaptation of structure to the habits of the birds. What is the bird doing? Why and how does he do it? What does he eat? When and where does he sing? Where and of what does he make his nest? What does the bird do for us, and what can we do for the bird? These and other kindred live topics relating to the home life of the birds are the essentials—from the child's point of view. And it is the child's point of view which the teacher must keep in mind. If from a mature standpoint a method of procedure seems to be unscientific and illogical, it must be remembered that one can always afford to be both unscientific and illogical in the treatment of a subject if one becomes thereby more consistent in the treatment of the child.

How to attract birds to our yards is a branch of bird study which above all others appeals to the children and gives great joy and profit to all concerned. Children so delight in activity that they can be depended upon to carry out with enthusiastic energy suggestions for supplying birds with food, water, nesting materials, and even homes. 'A man that hath friends must show himself friendly" applies as truly to our relationship with birds as it does elsewhere, and the children will soon succeed in establishing enduring friendships with the objects of such care and sympathetic interest.

It is a very easy matter to attract birds to our homes, even to our school yards. Pieces of suct fastened well up on the tree trunks make a feast for the woodpeckers, nuthatches, and chickadees. Chopped suct and bits of fresh fat pork supplied regularly through the winter will ensure their daily presence in the neighborhood. A very satisfactory device for a feeding place is a small board shelf on a stout wire bracket, which can be swung out two or three feet from a veranda post or window frame. A shelf or tray mounted on a post in the yard securely proctected from cats is also useful. These plans and others which the ingenuity of the children will suggest, can be tried in the school yard as well as by the children at their homes. Fresh water, which is always acceptable to the birds, should be provided in shallow dishes, also set on posts, swinging trays, or in other safe positions. It is worth noting that a rough dish which affords a secure perch is preferable to one having a glazed surface.

Many varieties of birds can be easily attracted by an abundant supply of nesting materials provided at the proper time. String, yarn, and thread for the orioles and chebecs, hair for the chipping sparrow, bits of tissue paper for the vireos, tufts of cotton and of wool for the goldfinches and cedar waxwings, pans of fresh mud for the robin, will soon be discovered and appropriated.

Children can also be encouraged to exercise their ingenuity in making bird houses. These properly placed will attract bluebirds, wrens, chickadees, and sometimes tree swallows. The following hints about the construction of such bird homes are taken from "Nature and Study and Life," Ginn & Co., by Dr. C. F. Hodge, of Clark University, Worcester, Mass. "The proper size for a bird house is six inches square floor space, and eight inches high, and houses of more than one compartment may be made by cutting the boards in multiples of these numbers. Old weathered boards should be used,

or, if painted, should be made the color of an old tree trunk. A single opening near the top should be made, two inches in diameter for most birds, although for wrens and chickadees one inch is sufficient and will serve to keep out the English sparrow." It may be added that for bluebirds an opening without a perch will suffice, and will also help keep out English sparrows.

Teachers who are looking for a book to aid them in the identifying unfamiliar birds will find a most helpful key in the inexpensive little book, "Common Land Birds of New England," by Prof. M. A. Willcox, published by Lee and Shepard, Boston.

Miss Florence Merriam's "Birds of Village and Field," published by Houghton, Mifflin Co., Boston, contains much authentic and useful information relating to the economic status of our common birds, and many practical suggestions for attracting the different varieties to our homes.

The Audubon Society of Rhode Island (Sec. Miss Alice W. Wilcox, 165 Prospect St., Providence) has a limited number of pictures, leaflets, charts, and libraries of bird books, which are available for use in the schools of the State.

-Edith G. Alger, Providence.

"THE TREE TOP."

"A bird in the bush is worth two in the hand!"

As for birds, I do not believe there is one of them, but does more good than harm; and of how many featherless bipeds can this be said?—Lowell.

Redstarts, like all little birds, are "feathered appetites," and this means the destruction of innumerable insects, health of shade trees, and the perfecting of flowers.—C. C. Abbot.

If I were a bird, in building my nest, I should follow the example of the bobolink, placing it in the midst of a broad meadow, where there was no spear of grass, or flower, or growth unlike another to mark its site.—John Burroughs.

As for myself, I am turned hammock contractor for the orioles, taking my pay in "notes." I throw strings out of the window and they snap at them at once. They sit up in the cherry tree hard by and warble, "Hurry up, hurry up!" I never found out before just what they said. But if you will listen you will find that this is what they say first.—Lowell.

There beneath the weed, hopping about on the snow, were a tree sparrow and a junco, picking up the seeds that their companions above were shaking down. It seemed for all the world like a boy in an apple tree shaking down the fruit for his playmates, who were gathering it from the ground as it fell. Farther on in the woods I saw a junco dart up to a weed too small to afford him a comfortable perch, give it a shake which would bring down a quantity of seeds, and then flit below and eat them from the white table-cloth.—L. S. Keyser.

One day in July I happened to see a cedar-bird tugging at the frayed ends of a cord, which had been fastened to a branch of one of the fir trees, close by our house. Taking hint I placed a quantity of red and blue yarn on the branches, and on some bean poles near the nesting site. Every thread was taken from the fir and worked into what became a very gay mansion. It was placed on a spreading apple bough.—F. II. Herrick, in "Home Life of Wild Birds."

When watching a wood pewee in Farmington one day, I was much puzzled by her actions. Again and again she crossed a wide open space and flew against the side of a tree trunk. What food could she be finding there? Putting up my opera glass I was delighted to discover a round patch of light green lichen on the spot to which she went, and following her flight saw her go straight as an arrow to a crotch in a tree top, where she sat down and went to moulding a little knot in the crotch. She had been gathering lichen for her nest! It seems a simple matter, but after years of delight in the exquisite lichen covered nest of the wood pewee—a nest excelled by none but the hummingbird's—it is enough to start one's pulses to see the dainty builder actually putting on her decorations. To the true bird-lover life cannot be altogether blank while such pleasures are to had for the asking.—Florence Merriam, in "Birds of Village and Field."

When nature made the bluebird she wished to make the sky and the earth friends. So she gave him the color of the one on his back and the hue of the other on his breast. She ordered that his appearance in spring should tell that the strife and war between earth and sky was at an end.—John Burroughs.

Every school has a flagpole, and, while some are fastened to the building itself, many stand free and are planted in the yard. Around this pole a square or circular shelf about eight inches wide can be fastened, four feet from the ground, and edged with a strip of beading, barrel hoops, or the like. A dozen tenpenny nails should be driven on the outside edge at intervals, like the spokes to a wheel, and the whole neatly painted to match the pole. Then, each week one child should be appointed as *Bird Steward*, his or her duties being to collect the scraps after the noon dinner hour and place them neatly on the counter, the crusts and crumbs on the shelf and the meat to be hung on the spikes. The flag will wave gaily above little Citizen Bird, as under its protection he feeds upon his human brothers' bounty.—Conn. State Board of Education

If we do not have all the robins we want it is because we do not know enough about rearing them or are not willing to act on our knowledge. A pair of living bird's eggs, with proper care by the children of the country, could produce in ten years a pair for every child in the country. With ten years as the life of a robin, allowing that each pair of robins rear ten robins every year, and making no allowance for losses, we shall have:

1st year, $(2+10)$	robins.
2d year, $(12 + 60)$	**
3rd year, $(72 + 360)$	* *
4th year	6.6
5th year	6.4
6th year93,312	4.4
7th year	4.4
Sth year	"
9th year20,149,392	4.4
10th year	6.6
50th year	000.000

From "Nature Study and Life"—Ginn & Co.

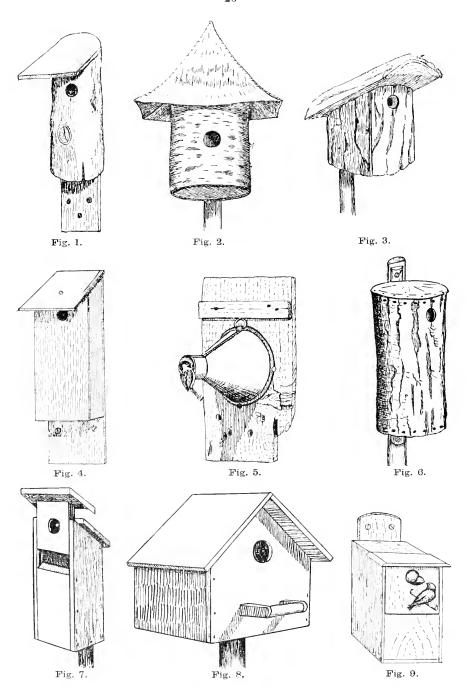


PLATE XLVII. — Bird Houses and Nesting Boxes. Fig. 1, hollow limb nesting box; Fig. 2, birch bark bird house; Fig. 3, slab bird box; Fig. 4, cat-proof box; Fig. 5, a use for an old funnel; Fig. 6, chestnut-bark nesting box; Figs. 7 and 9, boxes with slide fronts; Fig. 8, house for Tree Swallow.

HINTS ABOUT PUTTING UP BIRD BOXES.

There is no keener pleasure derived from any source than that which comes from the possession of bird neighbors. No class of tenants give more complete satisfaction than box-dwelling birds, houses for which can be cheaply and easily creeted. No class of tenants can be relied upon for more full and complete rental, in the shape of noxious insects destroyed, delightful music rendered, and, further, they are an unfailing source of amusing and instructive incidents. The boy or girl who puts up boxes for the birds to nest in, supplies them with drinking and bathing places, and provides food for those species which remain in winter, is certain of an unfailing source of pleasure.

Birds, like human beings, are capable of adapting themselves to circumstances to a very great degree. This is well illustrated in the barn and eliff swallows, which in settled localities have taken to nesting on the rafters and under the eaves of barns, intead of upon the faces of cliffs as did their ancestors, and as their brethren of less settled sections still do. In preparing nesting places for the birds, it should be borne in mind that the kind which will most readily appeal to them are such as most nearly approach to their natural nesting Bluebirds and house wrens are the species which most quickly respond to an invitation to nest in artificial sites about our homes, and are the least critical as to the architeeture of their dwellings. The roughest shelters and the most ornate structures are both aeceptable to these welcome bird neighbors, but plain and weather-stained boxes are most sure of an early tenant, though with the bluebird and house wren the appeal of a convenient knothole or natural cavity in a limb is apt to be stronger than the attractions of any box. Small drainage holes to allow the water to escape from the bottom of any artificial nesting limbs or boxes in ease rain should drive in, and sloping and projecting tops to shed rain, are important in all cases. Pieces of limb, natural or artificial, may be wired to the trunk or branches of a shade tree, or fastened on top of a post, which may be covered with growing vines, but eare must be taken to guard against the raid of cats and squirrels. A piece of tin fastened around the trunk of the tree or the post which bears the bird box, in the shape of an inverted funnel, is sometimes used to prevent eats gaining access to the nest, and when the box is on a post a strip of heavy square-mesh poultry wire may be placed on top of the post, under the box. Dried gourds, hollowed out, with an opening made for an entranee, hung in a tree often attract wrens and sometimes bluebirds.

To utilize an old tomato can, the flap which has been almost severed from the box in removing the fruit has a small hole cut out by making two slits about an inch apart and the same length, bending up the piece between the cuts. The rough edges around the entrance of any tin nesting receptacle should always be bent over to prevent birds being injured by them. Such a nesting box is either tacked to a piece of board, which is in turn fastened up on the side of a building or the trunk of a tree, or it may be fastened directly to the building or tree by two nails driven obliquely through the end from the sides.

Receptacles for wrens' nests may have entrance holes about the size of a silver quarter dollar, large enough to admit the wren, but too small for the English sparrow. This bird is another enemy to our native birds, and one which has done more than any other agency to drive them from our grounds, utilizing for his own nest the places provided for wrens and bluebirds, and quarreling with and driving away even those whose nesting habits do not in any way conflict with his own. Boy and girl landlords must guard against these undesirable naturalized citizens, removing their nests when they start to build, and frightening the little disturbers off the grounds.

Some writers find swinging boxes or nesting limbs, hung in the branches of trees by wires, proof against the English sparrow, which is wary of any nesting site not absolutely stable. Others have not always found this method successful. It is probable that as a rule the sparrows would not trouble such domiciles.—B. S. Bowdish.

THE GRAND OLD TREES.

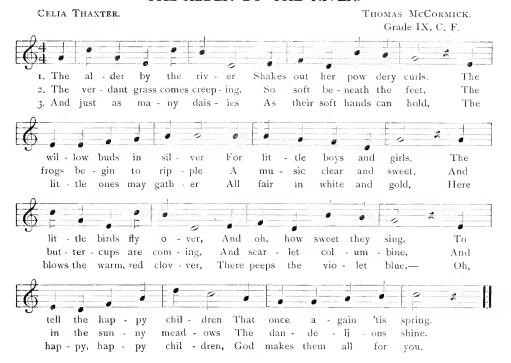


NOTE. The Bass may be omitted.

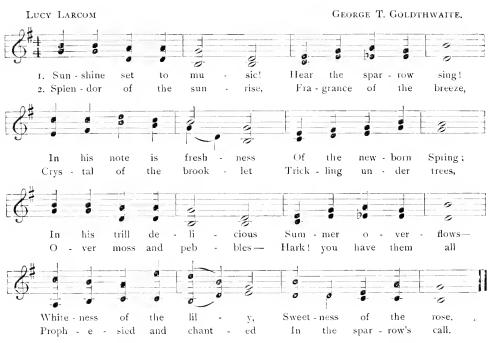
WELCOME TO THE FOREST



THE ALDER BY THE RIVER.



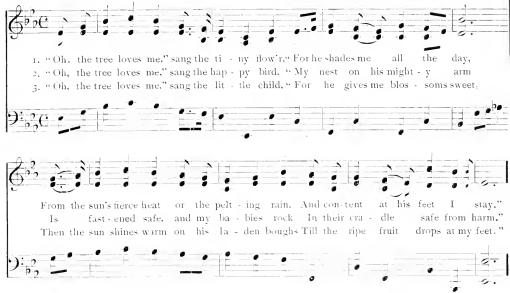
THE SONG SPARROW.





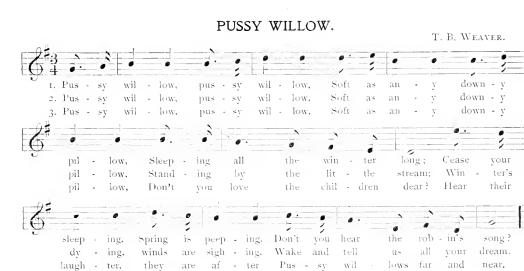
From " Educational Music Course - Primary Songs."

THE TREE'S FRIENDS.



From " Songs of the Child World."

From " Primary Plans."







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